

1 **CLAIMS**

3 **1.** A computer-executable method, comprising:

4 intercepting a message that modifies security information associated with
5 an object, the security information identifying an owner of the object and an entity
6 that has access to the object;

7 determining if the owner exceeds a first threshold security level, and if so,
8 issuing a first notification that the owner exceeds the threshold security level; and

9 determining if the entity that has access to the object exceeds a second
10 threshold security level, and if so, issuing a second notification that the entity
11 exceeds the second threshold security level.

13 **2.** The method recited in claim 1, wherein the first threshold security
14 level identifies the owner as being a questionable security risk.

16 **3.** The method recited in claim 1, wherein the first threshold security
17 level identifies the owner as being a dangerous security risk.

19 **4.** The method recited in claim 1, wherein not exceeding the first
20 threshold security level identifies the owner as being trusted.

22 **5.** The method recited in claim 1, further comprising determining if a
23 grant of permissions to the entity exceeds a third security threshold, and if so,
24 issuing a third notification that the grant of permissions exceeds the third security
25 threshold.

1 6. The method recited in claim 5, wherein the grant of permissions
2 comprises information that describes what access to the object for which the entity
3 is authorized.

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5 7. The method recited in claim 1, wherein the security information is
6 embodied in a security descriptor associated with the object.

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8 8. The method recited in claim 7, wherein the security descriptor further
9 comprises an owner field having a security identifier that identifies a security
10 context associated with the owner.

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12 9. The method recited in claim 7, wherein the security descriptor further
13 comprises a Discretionary Access Control List containing the information about
14 the entity that has access to the object.

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16 10. The method recited in claim 9, wherein the information about the
17 entity comprises a security identifier that identifies a security context of the entity,
18 and an access mask that defines permissions granted to the entity.

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20 11. The method recited in claim 1, wherein intercepting the message
21 comprises hooking an Application Programming Interface (API) that enables the
22 modification to the security information.

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24 12. A computer-readable medium having computer-executable
25 instructions for performing the method recited in claim 1.

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2 **13.** A computer-readable medium having computer-executable
3 instructions for evaluating a security threat posed by an application modifying an
4 object, the instructions comprising:

5 intercepting a modified security descriptor for an object, the security
6 descriptor including an owner SID field and a DACL, the owner SID field
7 identifying an owner of the object, the DACL identifying at least one entity that
8 has access to the object and access permissions for the entity;

9 evaluating the owner of the object to determine if the owner is categorized
10 as dangerous, and if so, issuing an alert notification;

11 evaluating the DACL to determine if the entity is categorized as dangerous,
12 and if so, issuing the alert notification; and

13 if the entity is not categorized as trusted, evaluating the DACL to determine
14 if the access permissions for the entity are categorized as dangerous, and if so,
15 issuing the alert notification.

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17 **14.** The computer-readable medium recited in claim 13, further
18 comprising evaluating the owner of the object to determine if the owner is
19 categorized as questionable, and if so, issuing a warning notification.

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21 **15.** The computer-readable medium recited in claim 13, further
22 comprising evaluating the DACL to determine if the entity is categorized as
23 questionable, and if so, issuing a warning notification.

1 **16.** The computer-readable medium recited in claim 13, further
2 comprising evaluating the DACL to determine if the access permissions are
3 categorized as questionable, and if so, issuing a warning notification.

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5 **17.** The computer-readable medium recited in claim 13, wherein the
6 notification comprises a substantially instantaneous notice issued to a user.

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8 **18.** The computer-readable medium recited in claim 13, wherein the
9 notification comprises an entry in a log.

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11 **19.** A computer-readable medium having computer-executable
12 components, comprising:

13 a security verifier having a security descriptor evaluator component
14 configured to intercept a message that affects security information of an object,
15 and to evaluate a security identifier associated with an entity having access rights
16 to the object, the evaluation including a determination whether the entity is
17 categorized as other than trusted, the security descriptor evaluator component
18 being further configured to issue a notification if the entity is categorized as other
19 than trusted.

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21 **20.** The computer-readable medium recited in claim 19, wherein the
22 security descriptor evaluator component is further configured to issue a second
23 notification if the entity is categorized as dangerous.

1 **21.** The computer-readable medium recited in claim 19, wherein the
2 security descriptor evaluator component is further configured to evaluate a second
3 security identifier associated with an owner of the object, and to issue a
4 notification if the owner is categorized as other than trusted.

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6 **22.** The computer-readable medium recited in claim 21, wherein the
7 security descriptor evaluator component is further configured to issue a second
8 notification if the owner is categorized as dangerous.

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10 **23.** The computer-readable medium recited in claim 19, wherein the
11 security descriptor evaluator component is further configured to evaluate the
12 access rights of the entity, and to issue a notification if the access rights are
13 categorized as other than safe.

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15 **24.** The computer-readable medium recited in claim 23, wherein the
16 security descriptor evaluator component is further configured to issue a second
17 notification if the access rights are categorized as dangerous.

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19 **25.** The computer-readable medium recited in claim 19, wherein the
20 security information is contained in a security descriptor associated with the
21 object.

1 **26.** The computer-readable medium recited in claim 25, wherein the
2 security identifier is contained within a DACL.
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4 **27.** The computer-readable medium recited in claim 26, wherein the
5 access rights are described in the DACL.
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